

LISTING OF THE CLAIMS

The following is a complete listing of the claims

1.-15. (Canceled)

16. (Currently Amended) A green carbon foam having a density ranging from about 0.1 g/cm^3 to about 0.6 g/cm^3 and a thermally conductivity below about $1 \text{ W/m } ^\circ\text{K}$ manufactured by the process comprising:

placing swelling coal particles in a pressure controlled reactor;

heating the coal particles to a first temperature ranging from about 300°C to about 700°C under a non-oxidizing atmosphere, wherein the pressure of said non-oxidizing atmosphere ranges from about that for free flowing gas up 50 psi to about 500 psi; and

controlling said pressure in said reactor, wherein said pressure is maintained below about 500 psi,

wherein the steps of controlling pressure and heating said coal particles produces said green carbon foam.

17. (Previously Presented) A cellular coal product comprising:

a body having an open cell structure with pore sizes up to about $500 \text{ }\mu\text{m}$, wherein the body has a compressive strength ranging from about 2000 psi to about 6000 psi and has a thermal conductivity below about $1 \text{ W/m } ^\circ\text{K}$.

18. (Previously Presented) The cellular coal product of claim 17 wherein the body of carbon foam is largely isotropic having approximately equal physical properties in each direction.

19. (Previously Presented) The cellular coal product of claim 17 wherein the body of carbon foam has a density ranging from about 0.1 g/cm^3 to about 0.8 g/cm^3 .

20. (Previously Presented) The cellular coal product of claim 17 wherein the body of carbon foam is semi-crystalline, turbostratically ordered, and is largely isotropic having approximately equal physical properties in each direction.